I. AMENDMENTS TO THE CLAIMS:

Claim 1 has been amended.

The following Listing of Claims replaces all prior listings, or versions, of claims in the above-captioned application.

Listing of Claims:

1. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor comprising:

(a) a sensor part comprising

i. a corrosion resisting metal substrate having a fluid contacting surface, wherein the corrosion resisting metal substrate comprises an outer peripheral part and a central part, wherein the central part comprises a thin plate that has a thickness that is less than the thickness of the outer peripheral part;

ii. a thin film forming a temperature sensor; and

iii. a heater mounted on a rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

(b) a sensor base equipped with the sensor part installed thereupon to secure hermeticity, and the corrosion resistant metal substrate is fastened hermetically to the sensor base ~~by welding~~, wherein the thin film comprises

i. an insulation film formed on the rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

ii. a metal film forming the temperature sensor on the insulation film;

iii. the~~a~~ heater formed on the insulation film; and

iv. a protection film disposed to cover the insulation film and the metal film.

2. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, further comprising:

a fluid inlet for fluids flowing in;

a fluid outlet for fluids flowing out;

a body, wherein the sensor part fits into the body; and

a metal gasket fastened to the sensor base; wherein

the body comprises a flow passage formed therein for communicating between, and connecting, the fluid inlet and the fluid outlet; and strain applied to the sensor part when fastening the metal gasket to the sensor base is suppressed by a stiffness of material of the sensor base against which the metal gasket fastens to secure hermeticity between the sensor base and the body.

3. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the corrosion resistant metal substrate is formed with thickness of less than 150 μm.

4. (Cancelled)

5. (Cancelled)

6. (Previously Presented) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

7. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 2, wherein the corrosion resistant metal substrate is formed with thickness of less than 150 μm.

8. (Cancelled)

9. (Cancelled)

10. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 17, wherein the thin film comprises

an insulation film formed on the rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

a metal film forming the temperature sensor on the insulation film;

a heater formed on the insulation film; and

a protection film disposed to cover the insulation film and the metal film.

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 2, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

14. (Previously Presented) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 3, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

15. (Previously Presented) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 10, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

16. (Previously Presented) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 17, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

17. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor comprising:

(a) a sensor part comprising

i. a corrosion resisting metal substrate having a fluid contacting surface;

ii. a thin film forming a temperature sensor; and

iii. a heater mounted on a rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

(b) a sensor base equipped with the sensor part installed thereupon;

(c) a fluid inlet for fluids flowing in;

(d) a fluid outlet for fluids flowing out;

(e) a body, wherein the sensor part fits into the body; and

(f) a metal gasket fastened to the sensor base; wherein

the body comprises a flow passage formed therein for communicating between, and connecting, the fluid inlet and the fluid outlet; and strain applied to the sensor part when fastening the metal gasket to the sensor base is suppressed by a stiffness of material of the sensor base against which the metal gasket fastens to secure hermeticity between the sensor base and the body.

18. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the insulation film is an oxidized film with a thickness of 1.2 μm to 1.8 μm.

19. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the temperature sensor comprises a plurality of temperature detecting resistances formed by the metal film comprising a Cr/Pt/Cr film.

20. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 19, wherein the heater is formed by a metal film comprising a Cr/Pt/Cr film.

21. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the protection film is a SiO_2 film that is 0.4 μm to 0.7 μm thick.

22. (Previously Presented) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, wherein the outer peripheral part of the sensor part is fixed into a flat fitting groove on a bottom surface of the sensor base.